Section 1-5

Histograms

Warm-up

86 students took a history quiz . 7% of the students scored below a 70%, 28% of the students scored from 70% to 79%, 46% of the students scored from 80% to 89%, and 19% scored from 90% to 100%. Estimate the number of students in each group.

Below 70%: About 6

70% - 79%: About 24

80% - 89%: About 40

90% - 100%: About 16

How to create a histogram in your graphing calculator

Frequency Histograms: Displays how many values fall into a specific interval

Relative Frequency Histograms:

Displays what percentage of the values fall into a specific interval

Example 1

Look at the relative frequency histogram on page 39.

a. Why is it not possible to tell how many students are in the class just by looking at the histogram?

b. If there were 27 students in the class (kind of like there are in here...interesting...), how many students would have scored in the 80-89 interval?

c. In what 10-point interval does the median fall? How do you know?

Example 2

Use the table of relative frequencies.

Score	$40 \le x < 50$	$50 \le x < 60$	$60 \le x < 70$	$70 \le x < 80$	$80 \le x < 90$	$90 \le x < 100$
Rel. Freq.	2/15	3/15	0	4/15	1/15	5/15

a. About what percent of the students had scores in the 50-59 interval?

b. About what percent of the students passed?

Example 3

Here are some scores from Matt Mitarnowski's math class:

43 68 73 78 80 88 92 52 70 74 78 82 89 93 65 70 75
78 85 90 94 66 71 75 78 87 90 94 67 72 76 79 87 90 98

Create a histogram using intervals of 10.

Skewed Histogram:

A histogram where the data is shifted off to one side or the other.

Homework

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